# NEW AND INTERESTING RECORDS OF ADVENTIVE PLANTS FROM THE AUCKLAND INSTITUTE AND MUSEUM HERBARIUM 3

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*Abstract:* Further information on the distribution and history of adventive plant species in New Zealand is provided in this third list of records from the Auckland Institute and Museum Herbarium (AK).

This third account of some adventive plants is based as before (Bangerter 1975, 1976) on recently acquired or re-identified material. Attention has been given particularly to species represented by only one or two gatherings as these suggest either rarity or lack of collecting; only when distribution is of interest are third collections recorded, as in the case of *Geranium purpureum*. The necessary research into literature following the re-identification of early material in the herbaria of eminent botanists such as Cheeseman and Kirk often reveals interesting historical information as in the cases of *Bupleurum lancifolium* and *Centaurea melitensis*.

The nomenclature adopted is that published by the New Zealand Weed and Pest Control Society (1969). For species not included in that work references are given to the publications consulted. Specimens are cited by collector's numbers or, in the absence of these, by the AK Herbarium number.

## CRASSULACEAE

*Crassula decumbens* Thunb.

Auckland, Puriri Drive, Cornwall Park, 1971, A. E. Esler and S. J. Astridge, AK 129869; Franklin, near Tuakau, 1973, A. E. Orchard 4001; Hokianga, Waipoua State Forest, Kawerua, 1976, A. E. Wright 1399. These three relatively recent collections (which all have carpels with more than six seeds) together with one early specimen collected by H. B. Matthews, AK 69138, from Kaitaia, cited by Carse (1916), constitute the total representation of this species in the Herbarium. Healy (1948) redetermines Cheeseman's Penrose record, represented by sheet AK 69137, as *C. macrantha* (Hook. f.) Diels & Pritzel. An indication that *C. decumbens* was being recorded during the intervening period is provided by Healy (1944), who gives several localities, but absence of material in the Herbarium during this period may be due to the lowly habit of the plant, which must be carefully searched for.

## GERANIACEAE

*Geranium purpureum* Vill.

Auckland, Newmarket, George Street, 1976, E. B. Bangerter 5319. This is the third gathering in the Herbarium of this species, which is probably more widespread than currently recognised owing to possible confusion with *G. robertianum.* Its prevalence in the Auckland area beyond this record and the two previously given by Bangerter (1975) is revealed by Healy (1957) where two collections made by H. Carse in 1929, one from Penrose and the other from Onehunga, are cited.

## PAPILIONACEAE

*Lathyrus tingitanus* L.

The following specimens, all previously named *L. latifolius* L., were re-determined by Miss J. H. Goulding in 1972 as *L. tingitanus:* Parnell, Cathedral Place, 1945, B. Molesworth, AK 33772; Wellington Heads, 1950, K. Wood, AK 26587; Waitemata Co., Matakatia, 1965, J. H. Goulding 71; Hokianga Co., Kohukohu, 1966, R. C. Cooper, AK 117741, 117742; Bay of Islands, Opito Bay, 1966, R. C. Cooper, AK 127066. Allan (1940) says of this species "Noted as an escape near Blenheim," whilst Healy (1958, 1959) gives further localities in both Islands. The Herbarium also has a gathering: Parnell, Cathedral Place, 1975, E. G. Turbott, AK 138188, made thirty years after that of Miss Molesworth from the same locality.

*Lathyrus latifolius* L.

Other than cultivated material only three sheets of this species remain in the Herbarium after removal of the specimens re-determined as *L. tingitanus:* Mairangi Bay, in short grass near beach, 1974, E. B. Bangerter 5232; Waikumete Cemetery, 1976, E. B. Bangerter 5285, (collected in company with Miss S. Bowman and Mrs K. Wood); Waitemata Co., roadside near Bethells Beach, 1977, A. E. Wright 1661. Early records of this species may be found in Armstrong (1872), Kirk (1899) and Cheeseman (1906). Thomson (1922) and Allan (1940) provide no further localities and Healy (1969) gives it only a rare and local distribution in Canterbury. A photograph is provided by Parham & Healy (1976) who state that it may be found on "roadsides, hedges, waste land."

## BUXACEAE

*Buxus sempervirens* L.

Gt. Mercury Island, Huruhi Harbour, 1975, A. E. Wright, AK 137058. Except for two garden specimens this is the only gathering of box in the Herbarium. Allan (1940), in his Appendix, merely says "an occasional escape"; Connor (1951) gives it the same status and remarks that "the careless disposal of box-hedge clippings affords the common method of box poisoning in stock." Healy (1969) whose use of the name is followed here, gives the only recorded locality I can find, listing the plant as local and rare in the Canterbury area.

## SALICACEAE

*Populus alba* L. var. *nivea* Ait.

Mairangi Bay, on bank of creek, 1976, E. B. Bangerter 5311; Bethells Beach, mouth of Waitakere River, 1977, A. E. Wright 1690. These are the only examples of the silver poplar in the Herbarium. Allan (1940) says that "it suckers freely and tends to form colonies." My specimen was gathered from a stand of some half-dozen trees, some up to 6 m tall, growing with *Albizia lophantha, Cyathea dealbata* and *Coprosma* sp. The variety is distinguished from *P. alba,* the white poplar, by having all leaves white beneath. Hilgendorf (1967) and Healy (1969) both state that it may be classed as a noxious weed.

*Salix caprea* L.

Mairangi Bay, Montrose Terrace, 1973, E. B. Bangerter 5120. Little recording of this willow seems to have been done since Cheeseman (1925), who says ahat it was "occasionally seen" with *S. fragilis* L. and *S. babylonica* L. Allan (1940) remarks "established . . . in several localities", but does not specify any. Healy (1969) gives it in his Canterbury list and Allo (1959) states that its removal from swamp country in the Bay of Plenty area was "one of the biggest single tasks". A specimen labelled *S. babylonica* from Tauranga Co., Ngawaro, 1965, R. C. Cooper, AK 125748 is not a weeping willow but answers to the description of *S. caprea*, "pussy willow", and provides the only other gathering in the Herbarium. It has female catkins whereas my specimen bears male.

## UMBELLIFERAE

*Bupleurum lancifolium* Hornem.

Healy (1969), in his list of plants adventive in the Canterbury area, indicates a first record for this species, as a casual and local introduction, giving its origin as an impurity in bird-seed. A specimen mis-identified as *B. rotundifolium* L., Auckland Domain, T. F. Cheeseman, AK 33245, constitutes the sole representation in the Herbarium of *B. lancifolium*, but is unfortunately not dated. Cheeseman (1906) gives "near Auckland" as a locality for *B. rotundifolium*, revealing a possible very early date: he does not list *B. lancifolium* at all. The oblong-lanceolate leaves, sub-orbicular bracteoles and fewer rays distinguish the latter from the former. I have not been able to trace any other records for *B. lancifolium*.

*Melanoselinum decipiens* (Schrader & Wendl.) Hoffm.

Other than cultivated material, the Herbarium possesses two gatherings of this species: Devonport, North Head, 1971, K. Wood, AK 128675, det. A. E. Esler; Mairangi Bay, roadside bank with *Daucus carota*, fl. 1976, fr. 1977, E. B. Bangerter 5326. This handsome umbellifer has distinct dark purple fruits, the lateral wings of which are strongly denticulate; they are thin and flattened, being easily wind-borne as noted by Healy (1973). When being collected the plant has an aroma reminiscent of cultivated angelica, and I find that it is referred to by Constance (1967) in his note on *Angelica* cultivated in New Zealand. The nomenclature follows Tutin (1968: 371), where a detailed description may be found.

## LOGANIACEAE

*Buddleia davidii* Franch.

Auckland, Mt Wellington lava fields, 1973, A. E. Wright 556. This is the only New Zealand example of this species in the Herbarium. It was first recorded by Healy (1946), who gives several localities, and is listed by him for Canterbury (Healy 1969), but I have not found any other author who has paid attention to it. The species was a ready coloniser of London bombed-sites after the last war.

## COMPOSITAE

*Anthemis arvensis* L.

Thomson (1922) gives the first record of this species as "by Kirk in 1869 in the Auckland district." The only gathering in the Herbarium is: Penrose, T. Kirk, AK

78199 as *Matricaria arvensis,* with a pencil note on the sheet "New Record? p. 156." The page number refers to Allan (1940), where the record published by Kirk (1870) is noted. Cheeseman (1906) says of this and the allied species *A. cotula* L. "not common". More recent authors describe the plant as widespread and occasional, which makes the absence of material, other than Kirk's potential voucher for the first record, somewhat surprising. *A. cotula,* of which species there are several gatherings, has linear, acute receptacular scales, whereas those of *A. arvensis* are lanceolate, cuspidate. Most of the mayweeds *(Anthemis* spp. and *Matricaria* spp.) bear a superficial resemblance to each other and *A. arvensis* may have been passed over in the field for one of the more common species. Modern treatment of the group places species in several genera but New Zealand records are to be found under one or other of the two genera mentioned above.

*Aster laevis* L.

Mairangi Bay, 1974, E. B. Bangerter 5155. The identification of this plant is tentative as Michaelmas daisies are a complex group. It is put on record as the only named material in the Herbarium. I am unable to trace any other records for this species which is listed by the New Zealand Weed and Pest Control Society (1969) and by Matthews (1975).

*Centaurea melitensis* L.

Five undated sheets: Devonport, T. F. Cheeseman, AK 89791-5, erroneously identified as *C. solstitialis* L., represent this species in the Herbarium. Thomson (1922) says that Kirk reported the species from Canterbury in 1895 but "it has not been recorded since." Allan (1940) does add further localities as does Matthews (1975), and Healy (1944) gives several stations in the South Island. The last author (Healy 1969), describes it as an occasional species in sheep camps. It has not, therefore, disappeared from the adventive flora in spite of non-recording between 1895 and 1922. The misidentification of Cheeseman's specimens no doubt explains lack of reference to the Devonport locality.

*Centaurea solstitialis* L.

This species has been recorded from New Zealand since Hooker (1864) but only one sheet, AK 89800, exists in the Herbarium and that one of doubtful origin. On a Herb. T. F. Cheeseman label is written in pencil "vicinity of Wellington" and below "T.F.C.??". On the sheet itself, also in pencil, is written "Cent. soli.?, vic. Wellington, T. Kirk ??". The reason for suggesting Kirk as collector is presumably because he lists the species in his paper (Kirk 1878) on the naturalised plants of Port Nicholson. Healy (1969) in his account of the adventive flora in Canterbury states that the species appeared with lucerne stands sown with seeds of French origin.

*Erigeron canadensis* L.

Mangonui, Whale Island, 1976, A. E. Wright 1164. This is the only recent addition to the few gatherings in the Herbarium, undated but made by early collectors such as Cheeseman and Carse. The gathering, Mairangi Bay, 1973, E. B. Bangerter 5017, was wrongly determined by me as *E. canadensis* and was later re-determined by A. J. Healy as *E. floribundus* (H. B. K.) Sch-Bip. Consequent revision of herbarium material resulted in some forty sheets under the former name being transferred to the latter, with the exception of a few re-identified as *E. bonariensis* L. The differences between *E. floribundus* and *E. bonariensis* are detailed by Healy (1957), *Erigeron pusillus* Nutt.

Kaitaia, 1924, H. B. Matthews, AK 90426-30, comprises five sheets put under *Erigeron* but not determined specifically. This ample and uniform collection answers to the description of *E. pusillus* as given by Allan (1940) and compares well with American material named *Conyza canadensis* var. *pusilla* (Nutt.) Crong. I have, however, in this case followed the nomenclature used by the New Zealand Weed and Pest Control Society (1969). The only other reference to this species that I have noted is in Matthews (1975), where it is said not to be widely distributed.

## SOLANACEAE

*Solanum diflorum* Vell.

Auckland, Mt Wellington Domain, under trees in wasteland on site of old quarry, 1974, A. E. Esler & S. J. Astridge 4682. This is the only example in the Herbarium. Healy (1958) publishes the first records of this species, under its older synonym, *S. capsicastrum* Link., from Upper Hutt and near Feilding in 1953. Later (Healy 1969), he lists the species for Canterbury.

## AMARYLLIDACEAE

*Allium neapolitanum* Cyr.

Auckland, Mt Roskill, Parau Street, rare on a roadside bank with *Oxalis* spp. and *Allium triquetrum* L., 1976, A. E. Orchard 4857. This is a third gathering in the Herbarium of this plant noted as an escape for the first time by Bangerter (1976).

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